

Meeting Minutes  
January 27, 2004  
Tri-Party Agreement Milestone Review

0061452

Approval: Michael A. Wilson (B5-18)  
Ecology IAMIT Representative

Date: 2/24/04

Approval: W. Wade Ballard (A5-12)  
Chairperson and RL IAMIT Representative

Date: 2/25/04

Approval: N/A  
Jim E. Rasmussen (H6-60)  
ORP IAMIT Representative

Date: \_\_\_\_\_

Approval: Nick Ceto (B5-01)  
EPA Chairperson and IAMIT Representative

Date: 2/24/04

**RECEIVED**  
MAR 15 2004

**EDMC**

Minutes Prepared by:

Approval: Eileen Murphy-Fitch (A4-25)  
Fluor/Hanford, Inc.

Date: 2/24/04

Aroni, E. S.	CHG	H6-63	Jim, R.	YIN*	
Bartus, D.	EPA	B5-18	LaRue, D. N.	BHI	H0-11
Bazzell, K. D.	RL	A3-04	Leary, K. D.	RL	A6-38
Bilson, H. E.	RL	A3-04	Mattlin, E. M.	RL	A5-15*
Bond, R.	Ecology	B5-18	McCormick, M. S.	RL	A5-11
Borghese, J. V.	FH	E3-65	McKarns, T. C.	RL	A5-15
Brown, M. E.	Ecology	B5-18*	McKenney, D. E.	FG	H8-44
Buxbaum, M.	FH	B3-53*	Miskho, A. G.	FH	N1-26
Cameron, C.	EPA	B5-01	Morrison, R. D.	FH	A4-25*
Clark, C. E.	RL	A5-15	Murphy-Fitch, E. J.	FH	A4-25*
Charboneau, S. L.	RL	A4-79	Niles, K. S.	ODOE	
Collins, M. S.	RL	A6-38	Piippo, R. E.	FH	A4-25
Cusack, L.	Ecology	B5-18*	Price, J.	Ecology	B5-18*
Cummins, G. D.	FH	H8-12	Rodriguez, C.	WTEC	A4-79
Dagan, E. B.	RL	A5-15	Rodriguez, H. M.	RL	A5-15
Earley, L.	RL	A4-79	Romine, L. D.	RL	A6-33
Faulk, D.	EPA	B5-01	Schepens, R. J.	RL	H6-60
Foley, B. L.	RL	A6-38	Skinnarland, E. R.	Ecology	B5-18
Ford, B. H.	FH	E6-35	Sobotta, P.	NPT*	
Fritz, L.	FH	H8-44	Sinton, G.	RL	A6-38
French, M.	RL	A4-79	Stanley, R.	Ecology	Lacey*
Gadbois, L.	EPA	B5-01	Thompson, S.	FH	H5-27
Gay, R.	CTUIR		VanMasen, E.	Ecology	B4-18
Gallagher, R.	FH	H5-20	Veitenheimer, S. J.	RL	A4-79
Hebdon, J. B.	DOE	A5-15	Watson, D.	FH	X3-79
Hedges, J.	Ecology	B5-18	Wilde, R.	FH	E6-35
Henry, G.	OOE		Williams, J. D.	FH	L5-66
Hertzel, J. S.	FH	A4-25	Winterhalder, J. A.	FH	E6-35
Hildebrand, R. D.	RL	A6-38*	Wilson, M. A.	Ecology	B5-18
Hopkins, A.	FH	H8-25	Wilson, B. W.	Ecology	B5-18
Jackson, D. E.	RL	A4-52	Administrative Record	EDMC	H6-08*
Jackson, G. W.	FH	H5-20			
Jackson, R.	FH	E6-35			

\*w/Attachments File

**Tri-Party Agreement Milestone Review**  
**January 27, 2004**

---

**Spent Nuclear Fuel, M-034-00**

Presented by: Larry Earley, RL

Start: 9:01 a.m.

End: 9:44 a.m.

The status of Tri-Party Agreement of Spent Nuclear Fuel (SNF) was given by Larry Earley.

- Tri-Party Agreement Milestone M-034-08, *Initiate Full-Scale K East Basin Sludge Removal*, due December 31, 2002, has not been completed. The sludge removal system installation was completed and testing and training for the system operation is underway. Jim Todd is the new RL point of contact for sludge.
- Tri-Party Agreement Milestone M-034-28, *Complete Removal of 1,619 MTHM from the KW Basin*, due December 31, 2003, was completed on January 13, 2004.
- Tri-Party Agreement Milestone M-034-10, *Complete Sludge Removal from K Basins*, due August 31, 2004, will not be met. The final details on the alternate sludge removal strategy is nearing completion.

Improvements in multi-canister overpack (MCO) removal and the Fuel Transfer System (FTS) were achieved. The FTS availability was in excess of 90 percent in December 2003.

Programmatic reviews by RL have determined that processing K Basin sludge for WIPP disposal is preferred versus the current baseline/plan of interim storage at T Plant. This achieves risk-reduction objectives by minimizing handling requirements, eliminates interim storage risk, and accelerates final disposal. The processing of K-Basin sludge was evaluated in K Basins Interim Remedial Action Focused Feasibility Study (DOE/RL-98-66). K Basin Interim Remedial Action CERCLA ROD was the selected remedy for removal of sludge and interim storage at T Plant. EPA questioned the basis for the preferred option – pumping non-containerized sludge into a lined pit is not something EPA could support. Sludge put into a canister and stored at T Plant is less risky and safer way to perform the work. EPA requested a discussion to work through the logistics, path forward, etc., prior to formally processing a baseline change package/Tri-Party Agreement change package. A baseline change package is being developed in support of the revised K-Basin sludge disposal path and the accelerated basin deactivation approach. EPA reminded RL that they have not agreed to a new approach and cannot support a change in strategy for something they haven't had the opportunity to review. EPA further stated that RL and its contractors are performing SNF workscope in accordance with the current approved baseline and that EPA would hold RL accountable for the Tri-Party Agreement milestones currently in place.

Action: Meet with Ecology/EPA/RL and the appropriate Hanford Contractor to review the proposed path forward for sludge retrieval and disposition

Actionee: Nick Ceto/Laura Cusack/Larry Gadbois/Dale Jackson/Larry Earley

### **PFP Transition (M-083)**

Presented by: Stacy Charboneau, RL

Start: 9:44 a.m.

End: 10:12 a.m.

Stacy Charboneau presented the status of the Plutonium Finishing Plant (PFP) Stabilization Project (Tri-Party Agreement Milestone series M-083). The FY 2004 stabilization and packaging workscope will be completed on or ahead of schedule. Over 1700 items were stabilized and packaged in the first quarter of FY 2004. Final approval was received for Hanford meeting all Savannah River Site SRS Acceptance Criteria for 3013 containers. The first increment (10 percent) of the legacy plutonium holdup was removed from gloveboxes in the C Line in PRF. The D&D Project developed a seal out process for removal of glovebox process equipment that significantly improved productivity and reduced employee exposure. The solutions, metals, alloys, oxides, polycubes, residues, and 3013 packaging stabilization activities are complete. Ecology reminded RL that they need to engage in government-to-government discussions with the Indian Tribes/Nations in accordance with the Tri-Party Agreement; providing copies of letters/documents is not sufficient.

No significant regulatory issues or actions requiring follow-up were identified; presentation attached.

### **Central Plateau (M-013, M-015, M-016, M-020, and M-024)**

Presented by: Kevin Leary

Start: 10:12 a.m.

End: 10:32 a.m.

Numerous environmental documents are in progress. FY 2004 milestones will be completed on or ahead of schedule.

The characterization of pipelines and associated soil waste sites in the U Plant Area supports the U Plant Area Closure so the active part of the area closure is limited to the soil waste sites covered by the Feasibility Study (FS) and Proposed Plan (PP). Ecology does not believe that DOE was timely in developing an acceptable process for dealing with the pipelines. DOE is developing a process for pipeline characterization and remedial alternatives incorporating a graded approach and a decision matrix/flow chart that will be based upon risk, process knowledge, lessons-learned and an iterative process using Bayesian statistics.

One Ecology comment remains open on the 200-PW-2 and 200-PW-4 Operable Units RI/FS Work Plan. Ecology has requested that RL sample one additional waste site, and RL does not agree with the technical basis for the sampling. Ecology agreed that RL should proceed with field sampling of all other sites prior to approval of the work plan to mitigate any impact to the RI/FS schedule. Ecology transmitted a revision to the Sampling and Analysis Plan that identifies sampling requirements for the one additional waste site. RL will need to decide whether to accept the changes or dispute them.

EPA and Ecology transmitted a comment letter identifying a number of "global issues" on the Draft B Revision of the 200-CW-1, 200-CW-3 and Other 200 North Waste Sites FS and PP but did not include detailed technical comments. A series of meetings were held to work through EPA/Ecology comments. The remedial actions were repackaged in the revised draft FS and PP for the 200-CW-1, 200-CW-3 and other 200 North Waste Site OU groups. The regulators have indicated a desire to add additional thickness

to the existing cap and have asked RL to provide some validation of their proposal. RL will meet with EPA and Ecology to review changes and to discuss the technical issues and impacts associated with the repackaged remedies.

Ecology requested that the pits, lines, tanks, and boxes (200-IS-1) and septic tanks (200-ST-1) work plan be revised to include additional information on "likely response scenarios and potentially applicable technologies and operable units that may address site problems." This will require a revision to the Revision 0 document. Ecology is formalizing their request to RL via a letter and requesting RL to proceed with Revision 1 of the RI/FS Work Plan.

Issues associated with the RI/FS, Proposed Plans, etc., have not been successfully resolved at the project manager's level and should be elevated for resolution. The parties had previously agreed to instituting monthly brown bag sessions to provide the opportunity for open and productive communication. The Parties agreed that they needed to confirm their commitment to this concept and schedule them as soon as practical.

Action: Schedule brown bag sessions  
Actionee: Kevin Leary/Dale Jackson/John Price/Dennis Faulk

Presentation attached.

#### **Land Disposal Restriction Report, M-026-01**

Presented by: Mike Collins

Start: 10:32 a.m.

End: 10:33 a.m.

The CY 2003 LDR Report is on schedule and will be submitted on April 30, 2004. Work continues on the consolidation of requirements. No significant regulatory issues or actions requiring follow-up were identified; presentation attached.

#### **Tritium Treatment Technology Evaluation, M-026-07**

Presented by: Doug Hildebrand

Start: 10:34 a.m.

End: 10:35 a.m.

Deliverable will be completed on schedule. No significant regulatory issues or actions requiring follow-up were identified; presentation attached.

#### **Acquisition of Facilities to TSD TRU/TRUM, LLMW (M-091)**

Presented by: Greg Sinton, RL

Start: 10:35 a.m.

End: 10:49 a.m.

RL is meeting the deliverables on schedule. Significant accomplishments include the issuance of the Project Management Plan (PMP) on December 31, 2003; initiated public comment on the M-091 Tri-Party Agreement change package; initiated retrieval in 218-W-4C; initiated trench sampling in accordance with the approved Sampling Analysis Plan; started vapor extraction in T-4; started retrieval in T-4 and ahead of schedule on mixed waste treatment (643 m<sup>3</sup> in 1<sup>st</sup> quarter of FY 2004).



Following conclusion of the public involvement activities, the baseline will be revised to realign the scope/schedule to be consistent with the M-091 change package. RL anticipates a contract and revised life cycle BCR on March 1, 2004, that better defines the deliverables.

**Acquisition of Facilities Cs/Sr, Na, SCW (M-092-1/5)**

Presented by: Doug Hildebrand

Start: 10:49 a.m.

End: 10:55 a.m.

Accomplishments include the development of project requirements through issuance of the Project Management Plan, Performance Specification, and Functions and Requirements documents; established process technical basis by issuing Capsule Advisory Panel reports; completed safety analysis scoping; initiated NEPA analysis; and, defined RCRA Part B permitting path. The viability for direct disposal to the high-level waste repository continues. RL is currently evaluating the priority of the Cesium/Strontium Capsule Dry Storage Project. The workscope may be deferred so that funding can be allocated to higher priority workscope.

The regulators requested any information which RL has to suggest that Yucca Mountain would accept the Cs/Sr capsules without vitrification. The regulators have requested this information several times and have not received any information to date. Also, the regulators request that at the Tri-Party Agreement Quarterly Milestone Review, RL identify steps taken to get approval from Yucca Mountain.

No significant regulatory issues or actions requiring follow-up were identified; presentation attached.

**Permitting/Closure Plans, M-020-00**

Presented by: Tony McKarns, RL

Start: 10:55 a.m.

End: 11:07 a.m.

The Hanford Facility RCRA Permit expires September 27, 2004; the reapplication is due to Ecology by March 31, 2004. The delay in the appointment of an Ecology site-wide permit point of contact and the subsequent cancellation of the Permit Board Meetings has impacted the resolution of needed permit renewal checklists and Class 1 Modification E (CWC and WRAP) and F (Incorporates 222-S Laboratory Complex) packages. Ecology would need to either respond to the needed outstanding packages prior to February 17, 2004, or consider issuing a delay for the submittal of the site-wide permit (present renewal deadline is March 31, 2004). RL and its contractors would like to submit by March 31, 2004. The contractors start their certification process on February 17, 2004, and any changes made after that will be resolved during April 2004.

No significant regulatory issues requiring follow-on were identified; presentation attached.

**Annual Biennial Assessments of Information and Data Access Needs with EPA and Ecology, M-035-09D**

The presentation of milestone status was deferred to the February 24, 2004, Tri-Party Agreement Milestone Review.

**AGENDA**  
**Tri-Party Agreement Milestone Review**  
**Spent Nuclear Fuel/Central Plateau**

**January 27, 2004**

**EPA Conference Room**  
**712 Swift Blvd, Suite 5**

**Chairperson: W. W. Ballard**

- 09:00 a.m.     Spent Nuclear Fuel (M-034-00)
- 09:30 a.m.     PFP Transition (M-083-00)
- 09:50 a.m.     Complete RI/FS Submittals (M-013)  
                    RI/FS Process Completion (M-015)  
                    Complete Remedial Actions (M-016)  
                    RCRA Well Installation (M-024)
- 10:20 a.m.     LDR Report (M-026-01)  
                    Tritium Treatment Technology Evaluation (M-026-07)  
                    Acquisition of Facilities to TSD TRU/TRUM, MLLW (M-091)  
                    Facilities for Cesium/Strontium (M-092-01/05)
- 10:40 a.m.     Permitting/Closure Plans (M-020)
- 11:00 a.m.     Adjourn

**ATTENDEES**  
**Tri-Party Agreement Milestone Review**  
**Spent Nuclear Fuel/Central Plateau**  
**January 27, 2004**

NAME	ORGANIZATION	MAILSTOP	ATTACHMENTS
Carole Rodriguez	Westech	A4-79	Yes
David Watson	FH	X3-79	No
JANE HEDGES	Ecology		No
Rm Skinnalaw	Ecology		No
Lauren Casack	Ecology		Yes
Nick Ceto	EPA		Yes
Joel Heddon	DOE-RL	A5-50	No
Larry Gadbois	EPA	B5-01	No
DAVID LANGSTAFF	DOE-RL		Yes
DALE JACKSON	DOE-RL	A4-52	No
JEFF HERTZEL	FH		
Kevin Leary	DOE-RL		No
Rick Bond	Ecology		No
DENNIS FAULK	EPA		
Andrea Hopkins	FH		
STACY CHARBONEAU	DOE		
Mark Freund	DOE		No
RDell Hobb	DOE		Yes
Tom McEARS	DOE		
Greg Sinton	RL		No
Tom Misklo	FH		No
Michael Collins	RL	A6-38	No

# **Hanford Spent Nuclear Fuel Project**

## ***Tri-Party Agreement M-34 Milestone Review***



**Larry Earley**  
***U.S. Department of Energy,***  
***Richland Operations Office***

***January 27, 2004***

*Hanford Spent Nuclear Fuel Project*

**TPA Milestone Status**  
***Milestones Due Fiscal Year 2003***

<b>Number</b>	<b>Milestone Title</b>	<b>Due Date</b>	<b>Status/Comments</b>
M-34-12-T01	Complete construction of Sludge Water System (SWS) per section IIA of Construction Completion Document (i.e., completion of operational testing)	9/30/2002	Completed 3/4/2003
M-34-17	Initiate K-East to K-West fuel transfer	11/30/2002	Completed 11/25/2002
M-34-18A	Complete removal of 957 Metric Tons of Heavy Metal (MTHM) of Spent Nuclear Fuel (SNF) from the K-West Basin	12/31/2002	Completed 1/7/2003
M-34-08	Initiate full scale K-East Basin sludge removal	12/31/2002	MISSED. Sludge removal system installation complete. Testing and training for system operation in progress.
M-34-27-T01	Complete removal of 1252 MTHM of SNF from K-West Basin	5/31/2003	Completed 5/28/2003





## TPA Milestone Status

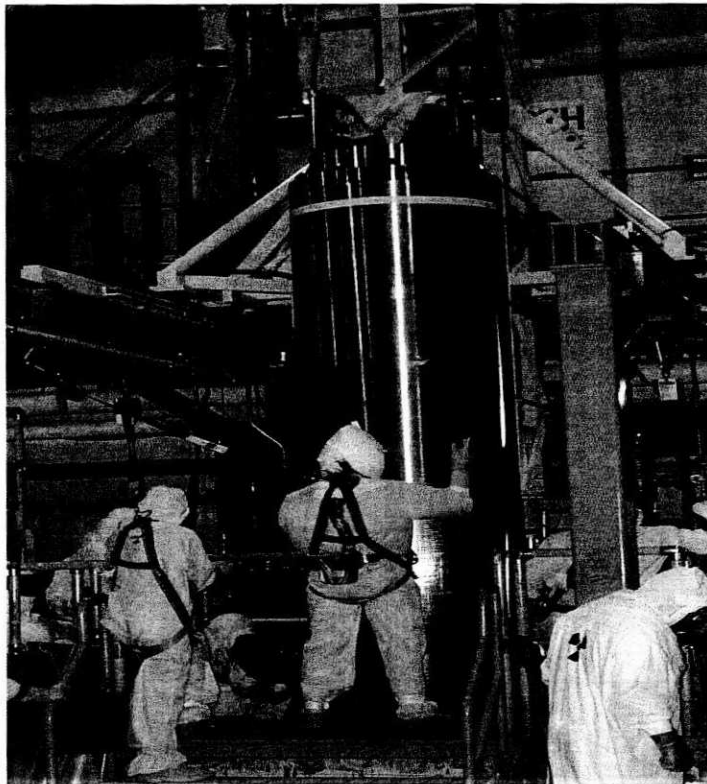
### *Milestones Due Fiscal Year 2004-2007*

Number	Milestone Title	Due Date	Status/Comments
M-34-28	Complete removal of 1,619 MTHM from the K-West Basin	12/31/2003	Completed 1/13/04
M-34-25-T01	Complete transfer of K-East Basin SNF to K-West Basin	5/31/2004	Working to complete in 4/2004.
M-34-18B	Complete removal of all K Basin SNF	7/31/2004	Working to complete in 6/2004.
M-34-10	Complete sludge removal from K Basins	8/31/2004	Milestone will not be met. The final details on the alternate sludge removal strategy are nearing completion.
M-34-23	Start K-East water removal	9/30/2004	Expected to be met by removal of water from K-East discharge chute or North Load-out Pit (NLOP)
M-34-09-T01	Complete K Basins rack & canister removal	1/31/2005	* (see note below)
M-34-24	Complete K-East Basin water removal	9/30/2005	* (see note below)
M-34-21-T01	Initiate full-scale K-West Basin water removal	10/31/2005	* (see note below)
M-34-22	Complete K-West Basin water removal	8/31/2006	* (see note below)
M-34-00A	Complete removal of K Basin fuel/sludge/debris/water	7/31/2007	* (see note below)

**\*NOTE:** Milestone change requests are likely to be submitted based on the revised K-Basin sludge disposal path and the accelerated basin deactivation approach.



## ***Multi-Canister Overpack (MCO) Production***



***Above:*** MCO being loaded on transporter.



***Above:*** Fuel handling.



***Above:*** Fuel Retrieval System Operators.

## ***Significant Accomplishments and Status***

- **Fuel Movement**

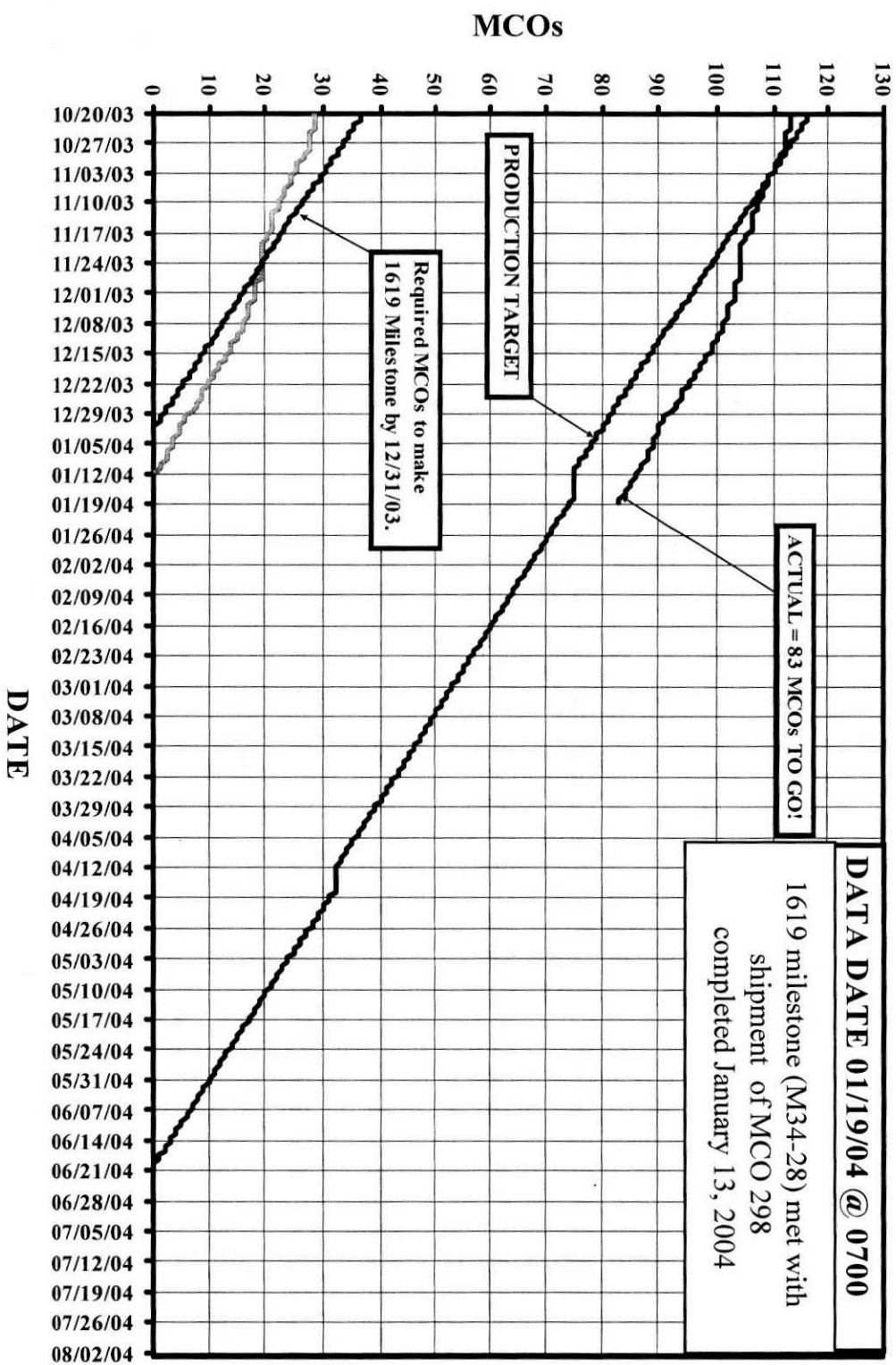
- Over one-million work hours have elapsed without a lost-workday case.
- Completed shipment of 189.81 MTHM (32 MCOs) from K-West Basin between October 17 and January 18, 2004. Cumulative total of 300 MCOs and 1634.82 MTHM
- Provided improved response to equipment issues reducing maintenance time to complete repairs.
- Improved maintenance planning and coordination between maintenance and operations to minimize production impacts.
- Radiological Improvements:
  - Implemented localized airborne radioactive area (ARA) controls centered around the Transfer Bay.
  - Focusing on shrinking the ARA to the south load out pit and MCO operations to minimize impacts from respirator use and release of the loaded MCO.
- MCO processing improvements implemented reducing processing time by 50%:
  - Effective/efficient conduct of shift briefs ensuring workers in the field within 1 hour of shift start
  - Provided more shift manager resources to evenly distribute work being managed
  - Provided new ergonomically-designed manual fuel handling tools
- MCO processing improvements being implemented:
  - Evaluating completing the MCO helium purge on the trailer instead of in the south load out pit.
  - Installing two new ergonomically-designed Flexible Transfer Cranes (FTCs) for fuel movement.



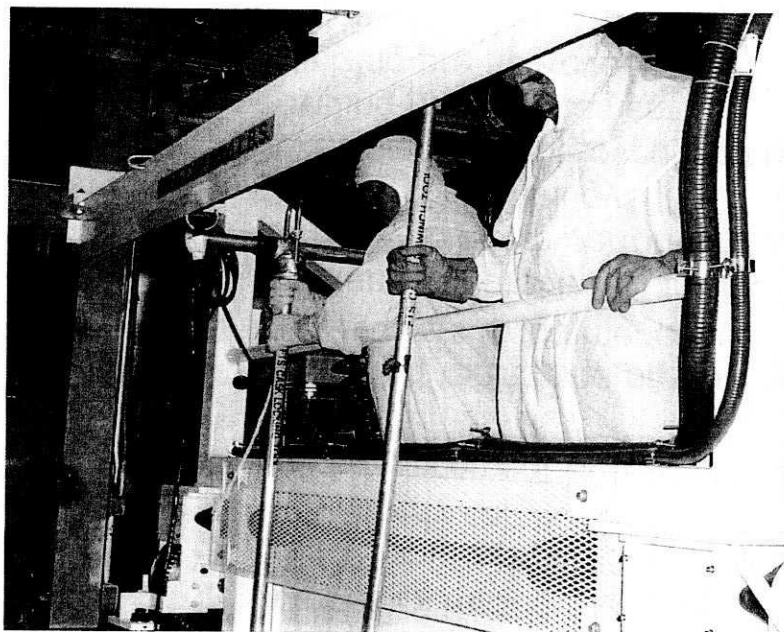


# Significant Accomplishments and Status (continued)

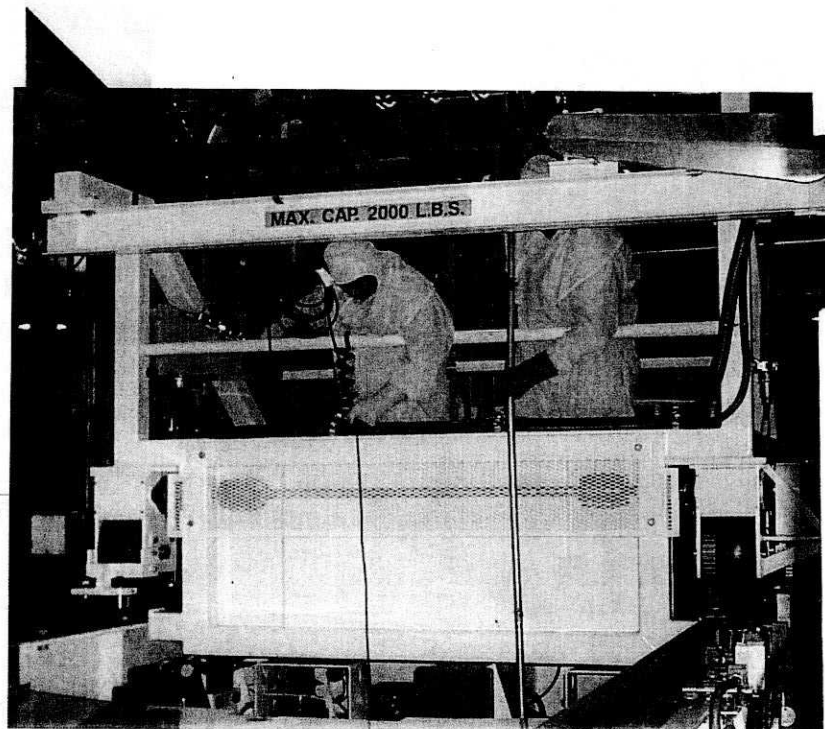
MCOs REMAINING



## ***Fuel Transfer System (FTS) Production***



***FTS crew working from the work platform***

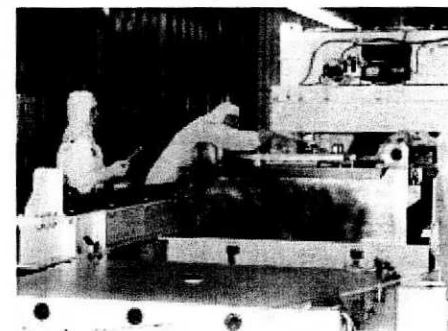


***Cask being prepared for off-loading in K-West***

## **Significant Accomplishments and Status (continued)**

- **Fuel Transfer System (FTS)**

- Completed 29 transfers in December, the highest monthly total ever.
- Completed 58 FTS shipments (578 canisters) from October 17 through January 18
  - 231 FTS shipments (2308 canisters) cumulatively completed
- Completed replacement of the traveling nuts on each jackscrew in November.
- Leveled both lift tables and pre-loaded the traveling nuts per the manufacturers recommendations in November.
- Actions taken to improve FTS availability:
  - Monitoring system performance using shock pulse monitoring technology
  - Developing pre-approved maintenance package for traveling nut replacement
  - Finalizing pre-approved recovery plans for upset conditions
  - Stocking spares with critical parts focusing on the jackscrew assembly
- FTS availability was in excess of 90% in December.
- Completed for the first time ever, 3 FTS shipments in one day on January 11, 2004



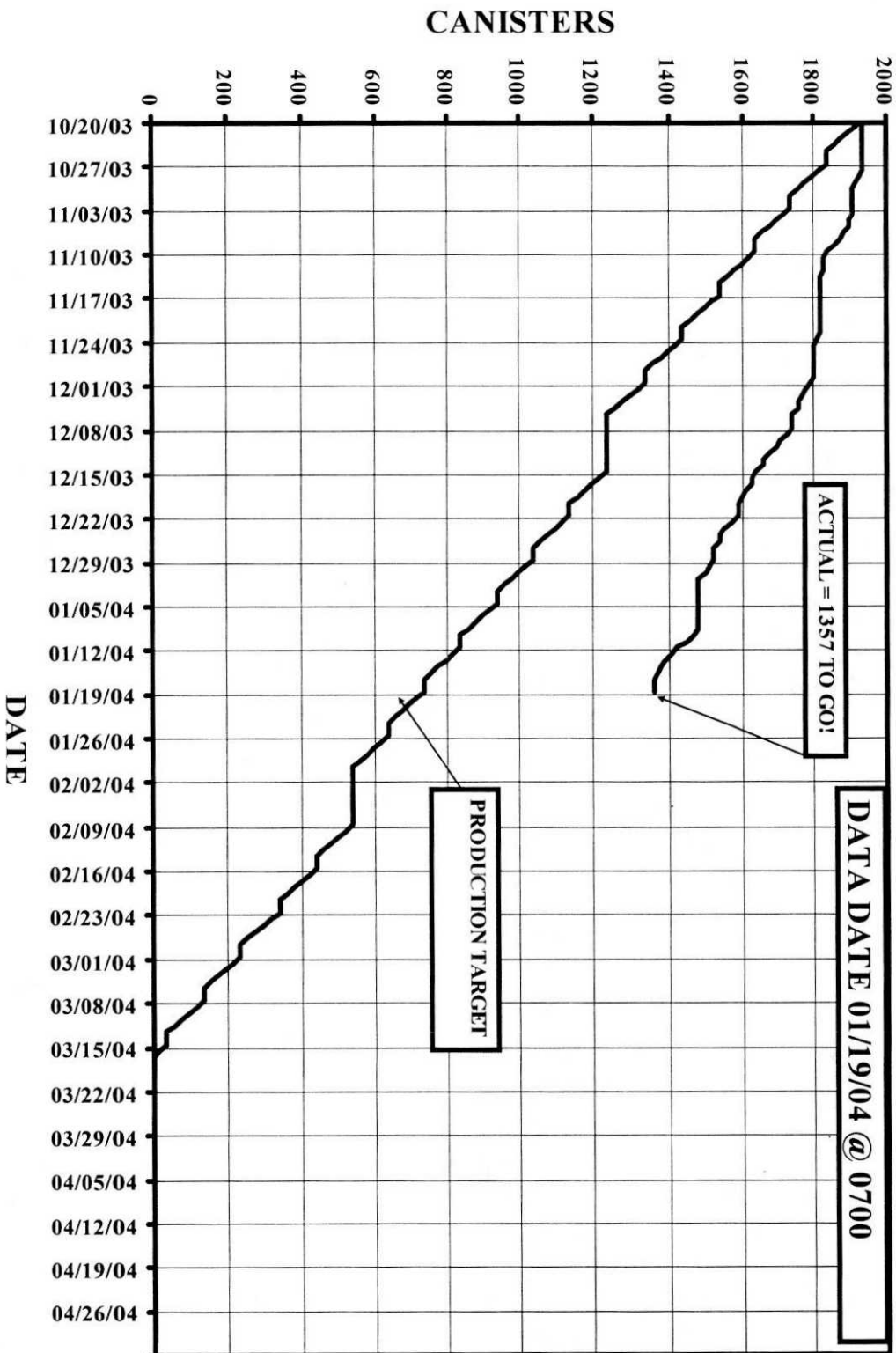
*First transport in K East Annex.*



*First transport leaves K East.*

# Significant Accomplishments and Status (continued)

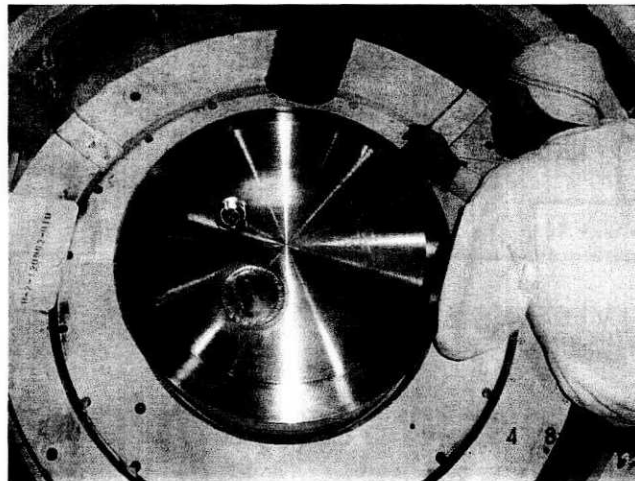
## FTS CANISTERS REMAINING



## ***Significant Accomplishments and Status (continued)***

- **Canister Storage Building (CSB)**

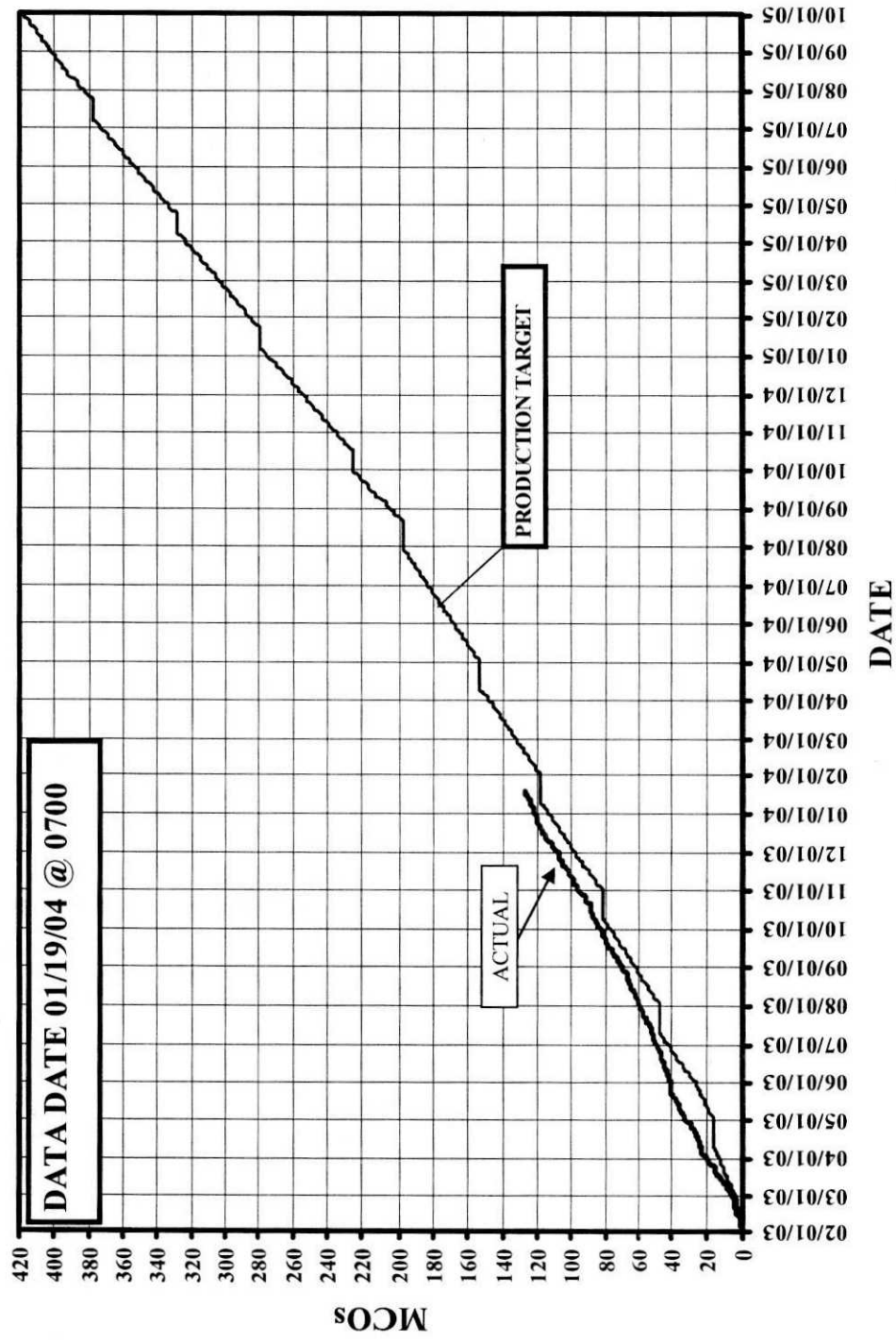
- Current welding status and production during the period of October 17, 2003 – January 18, 2004:
  - 38 MCOs welded during reporting period
  - 127 MCOs welded cumulatively
  - 8 ahead of schedule
  - Zero deficiencies in welding to date



***MCO welders***

# Significant Accomplishments and Status (continued)

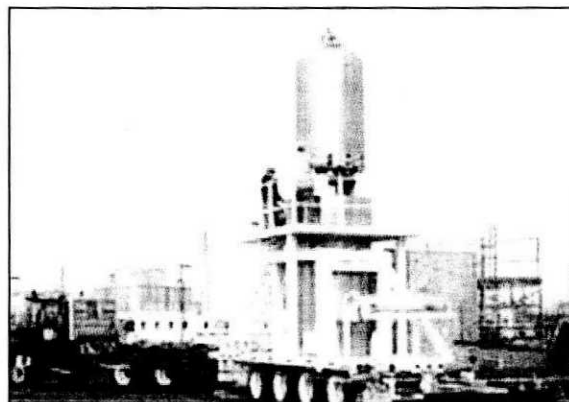
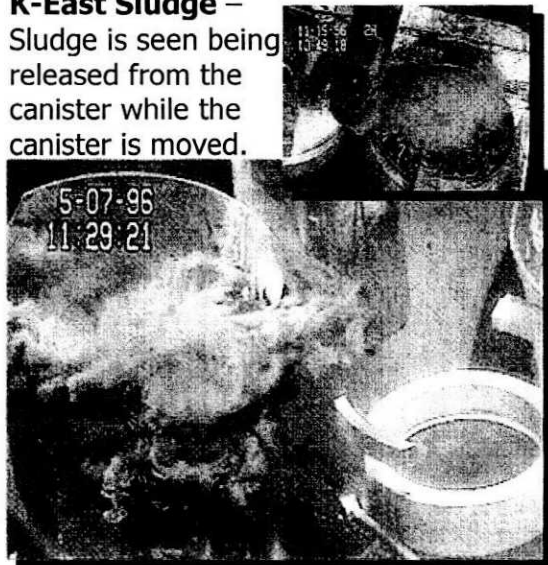
## MCO WELDING



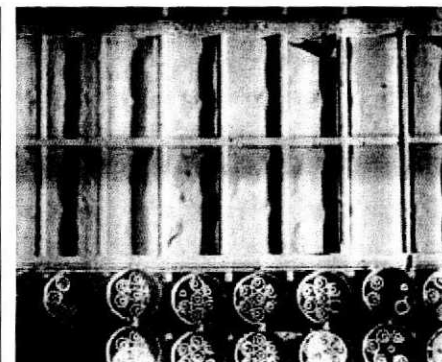


## Sludge Retrieval and Disposition

**K-East Sludge –**  
Sludge is seen being released from the canister while the canister is moved.



**Sludge Transportation System –**  
Test loading LDC into casks at K Basins



**Sludge –** Overview of canisters containing deteriorating fuel in the K-East Basin. Sludge is visible through the grating of the basin.

## ***Significant Accomplishments and Status (continued)***

- **Sludge Retrieval and Disposition - Programmatic Aspects**
  - ***Programmatic reviews by DOE have determined that processing K-Basin sludge for WIPP disposal is preferred versus interim storage at T-Plant. This achieves the following risk-reduction objectives:***
    - Minimizes handling requirements
    - Eliminates interim storage risks
    - Accelerates final disposal
  - ***Processing K-Basin sludge was evaluated in K Basin's Interim Remedial Action Focused Feasibility Study (DOE/RL-98-66)***
  - ***K-Basins Interim Remedial Action CERCLA ROD***
    - Selected remedy was removal of sludge and interim storage at T Plant
    - Response to public comments explained that financially viable opportunities to treat sludge for final disposal to WIPP and avoid interim storage will be pursued





## ***Significant Accomplishments and Status (continued)***

- **Sludge Retrieval and Disposition - Programmatic Aspects (Continued)**

- |  |                      |
|--|----------------------|
| ➤ <b><i>Estimated cost for removal and treatment of the 6.3m<sup>3</sup> of K-East NLOP sludge</i></b>           | <b><i>\$5.8M</i></b> |
| ➤ <b><i>Estimated cost for removal and treatment of all remaining sludge (approximately 50m<sup>3</sup>)</i></b> | <b><i>\$97M</i></b>  |
| ➤ <b><i>Cost avoidance by not using T-Plant for interim storage and later treatment</i></b>                      | <b><i>\$90M</i></b>  |
| ➤ <b><i>Life-cycle cost impact by going directly into treatment (over 25 years)</i></b>                          | <b><i>\$2M</i></b>   |



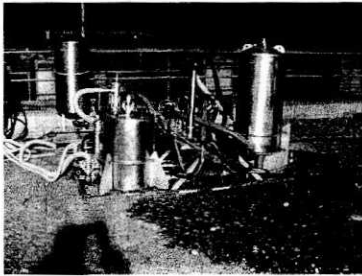
## ***Significant Accomplishments and Status (continued)***

- **Sludge Retrieval and Disposition - Implementation Aspects**

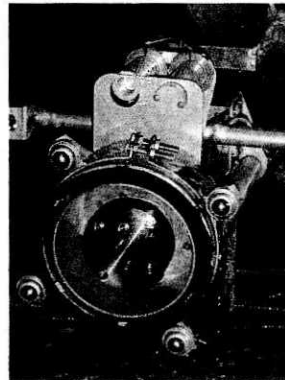
- ***Installation and testing of the K-East sludge removal system is complete; operator training in progress***
- ***Environmental documentation addressing sludge disposal pathway has been determined and discussed with the Environmental Protection Agency (EPA)***
  - Early retrieval of the K-East North Load-out Pit (NLOP) sludge (approximately 6.3 m<sup>3</sup>) will be conducted as a “time-critical removal action”
  - A CERCLA ROD amendment will grandfather in the actions of the “time critical removal action” and the remaining sludge
- ***Sludge samples of K-East NLOP shipped to the 325 Building for characterization and treatability studies***
- ***FH approved test plan prepared by PNNL to conduct treatability studies***
  - EPA included on early reviews; suggestions incorporated
  - PNNL issued first report of results and recommendations
- ***EPA has provided the following:***
  - Approval to treat the sludge samples “off-site”
- ***Consultations between DOE-RL and EPA have provided a determination and pathway for what changes/approvals are needed in the Project’s CERCLA documentation:***
  - Record of Decision
  - Remedial Design Report
  - Waste Management Documentation



# ***Deactivation Basin-Wall Decontamination Activity***



Underwater  
Waste  
Recovery  
Skid



Hydrolase Head  
and Video Camera



Robotic Arm  
and  
Hydrolasing  
Head  
Arrangement

## **Significant Accomplishments and Status (continued)**

- **Deactivation**

- *Hydrolasing System Technology*

- Progress during first quarter:
      - *Completed cold demonstration system testing in 183 K-East sedimentation basins*
      - *Completed hot demonstration system testing in 105 K-East Basin*
      - *Collected residue samples from 105 K-East for analysis and measurements of radiological activity remaining on basin wall*
        - Results demonstrate this technology will be effective
    - Planned use is to reduce radiation levels in the K-East Basins caused by radiological contaminant migration into the concrete by removing a portion of the concrete surface
    - Technical evaluations to determine effects of grouting residual aluminum (e.g., tags, tools) in situ in the basins are in progress
      - *Initial analysis indicates all aluminum canisters require removal*

- *K-Basins Dewatering*

- Received EPA's approval of the Risk-Based Disposal Application for Polychlorinated Biphenyls (PCBs) for the 200 Area Liquid Waste Processing Facilities



## ***Upcoming Activities***

### **Fuel Movement**

- Complete removal of spent nuclear fuel in June 2004  
(Milestone M-34-18B date is July 31, 2004)

### **Sludge Retrieval and Disposition**

- Complete treatability testing at 325 Building and issue report describing results
- Complete system design and sludge treatment specification
- Revise K-Basin Safety Basis and Transportation documentation specific to the removal and shipment of the NLOP sludge to 325 Building
- Preparation and issuance of "CERCLA time critical removal action memorandum" for K-East Basin NLOP sludge
- Environmental Protection Agency (EPA) approve "off-site" treatment of NLOP sludge at 325 Building
- Remove and ship K-East NLOP sludge to 325 Building
- Revise K-Basins CERCLA documentation (ROD and Remedial Design Report) to reflect accelerated sludge disposal pathway

### **Deactivation**

- Perform modifications to the K-East Basin grating and overhead rails and trolleys to facilitate the removal of debris from the basin
- Continue with the planning for the management of waste generated from the deactivation of the basins, including scoping changes to current Sampling and Analysis Plans used for the characterization of waste.
- Initiate detailed planning to grout/dewater K-East Discharge Chute, and seek EPA concurrence that this will meet TPA milestone M34-23



## ***SNF Project Issues/Concerns***

**Issue:** Accelerated K-Basin sludge disposal schedule is contingent upon issuance of Waste Acceptance Criteria (WAC) for remote handled TRU waste for WIPP disposal.

**Status:** Forecasted date for issuance of WAC is August 31, 2005.



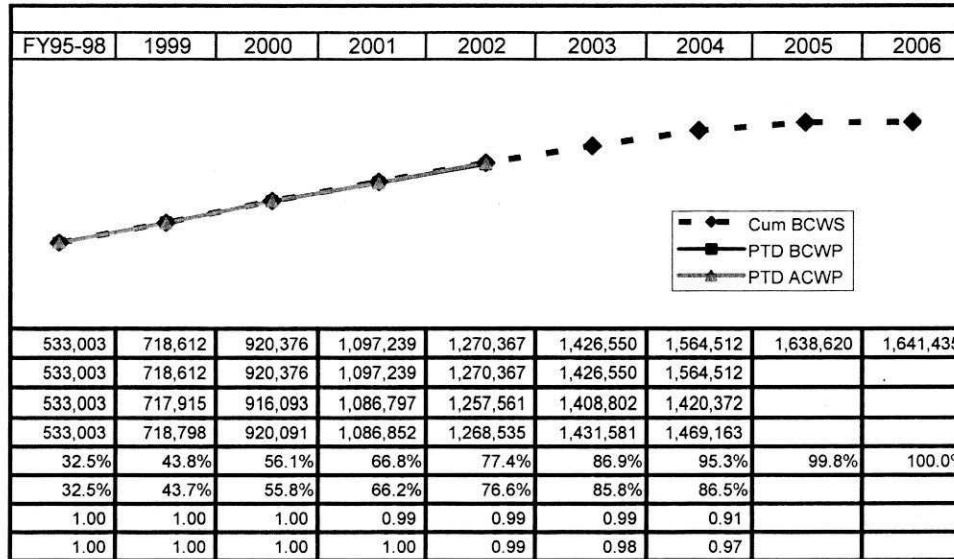
# Performance Measurement Terminology

- **BCWS (Budgeted Cost of Work Scheduled)**
  - *BCWS represents the baseline budget for a scope of work over time. BCWS is normally combined with a term such as "Current Period" or "Fiscal Year to Date (FYTD)" to identify the time period the BCWS is associated with. BCWS is created by spreading the baseline cost estimate for a scope of work across its schedule activity duration based on the expected monthly level of activity. BCWS is the basis for the funding requested to perform a scope of work and is maintained through a documented change control process*
- **BCWP (Budgeted Cost of Work Performed)**
  - *BCWP represents the value of the work actually accomplished during a period based upon its budgeted value or BCWS. BCWP is a measure of the value of work based upon the physical work reported complete per the baseline schedule status update*
- **ACWP (Actual Cost of Work Performed)**
  - *ACWP represents the actual costs incurred to perform the work that was completed during a period and recorded as BCWP. For any particular period, ACWP includes accruals for costs not invoiced or booked associated with work that was performed during the period*
- **SCHEDULE VARIANCE (SV)**
  - *SV represents the difference between the work actually accomplished and the work planned or scheduled during any particular time period. ( $SV = BCWP - BCWS$ ) A positive SV reflects an ahead of schedule situation while a negative SV reflects that work is behind the scheduled plan*
- **COST VARIANCE (CV)**
  - *CV represents the difference between the budgeted value of the work actually accomplished and the actual costs incurred to perform the work. ( $CV = BCWP - ACWP$ ) A positive CV reflects the work being accomplished for less than its budgeted value and a negative CV reflects the work costing more to complete than planned*
- **BAC (Budget at Completion)**
  - *BAC represents the total baseline budget for a scope of work associated with either a fiscal year or life cycle. BAC is the summary of all monthly BCWS values for a scope of work within the fiscal year or life cycle. On a fiscal year end report the FYTD BCWS will equal the FY BAC*





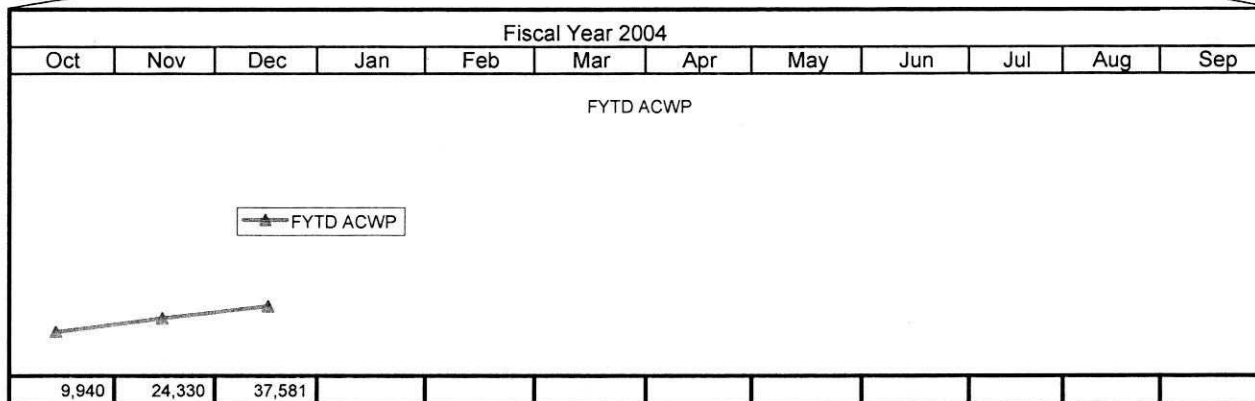
# Hanford Spent Nuclear Fuel Project



Life Cycle	
*BAC=	1,641,435
EAC=	1,641,435
BCWS=	1,564,512
BCWP=	1,420,372
ACWP=	1,469,163
SV=	(144,140)
CV=	(48,791)

\* Current BAC reflects a 10-month acceleration to the TPA completion date.

**Total  
Project  
Baseline**



**\* The Project is being re-baselined consistent with the new sludge/D&D strategy.**





**SNF Stabilization and Disposition  
Project Performance through First Quarter FY 2004**

		(\$ in thousands)
		<b>By PBS</b>
		<b>FYTD ACWP</b>
PBS RL-0012	Fuel and Operations	\$ 28,776
PBS RL-0012	Sludge Retrieval and Disposition	\$ 7,631
PBS RL-0012	D&D Deactivation	\$ 1,175
PBS RL-0012	Closure Services	\$ 4,282
<b>TOTAL</b>		<b>\$ 41,864</b>



## ***Points of Contact***

### ***Fuel Removal***

- **FH: Clegg Crawford**
- **DOE: Larry Earley**

### ***Sludge***

- **FH: Scott Sax**
- **DOE: Jim Todd**

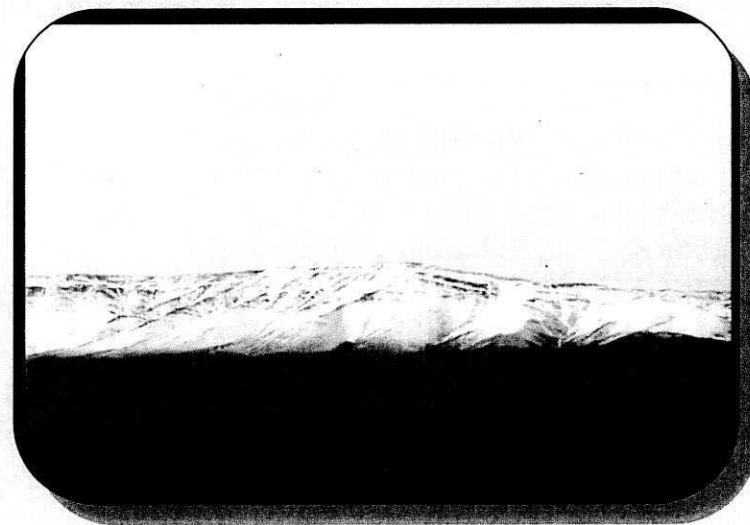
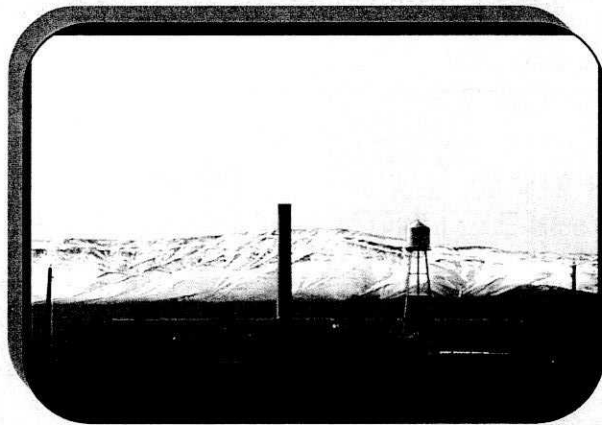
### ***Deactivation***

- **FH: Tony Umek**
- **DOE: Larry Earley**





# **Plutonium Finishing Plant Stabilization Project**



## **Milestone TPA-M-83**

**January 2004  
Tri-Party Agreement Milestone  
Status Report**

**Ecology Project Manager - R. Bond  
DOE-RL Project Director – S. Charboneau  
FH Project Manager – T. W. Halverson  
FH Environmental – A. M. Hopkins**

# M-83 Status for Interim Milestones Through 2006 (as of 12/31/03)

TPA No.	TPA Commitment Date	Milestone Title	Status
M-083-30	7/31/03	SUBMIT 241-Z WASTE TSD AND GLOVEBOX HA-20MB CLOSURE PLANS	Complete 7/25/03
M-083-20	9/30/03	SUBMIT FACILITY TRANSITION END POINT CRITERIA DOCUMENT	Complete 9/30/03
M-083-12 -T01	12/31/03	SUBMIT PFP LEGACY PU HOLDUP REMOVAL PLAN TO ECOLOGY	Complete 10/15/03
M-083-13	4/30/04	COMPLETE REPACKAGING OF PFP MIXED WASTE RESIDUES & SHIP TO CWC	Repackaging is complete. Shipment to CWC will be impacted since request to lower the attractiveness level to D was denied. TPA Change Request is in process.
M-083-31	6/30/05	DISCONTINUE WASTE DISCHARGES FROM THE 241-Z TANKS TO TANK FARMS	On Schedule
M-083-14	9/30/06	COMPLETE 100% OF THE LEGACY PU HOLDUP REMOVAL	On Schedule
M-083-40	9/30/06	COMPLETE TRANSITION AND DISMANTLEMENT OF 232-Z BLDG INCINERATOR	On Schedule

## PFP Pu Stabilization Scoreboard (DNFSB Status)

% Stabilized / Made Disposition Ready as of December 31, 2003

	1/31/03	3/31/03	6/30/03	9/30/03	12/31/03	
Solutions (by Pu Weight) -----	100%	100%	100%	100%	100%	
Metals -----	100%	100%	100%	100%	100%	*
Alloys -----	100%	100%	100%	100%	100%	
Oxides -----	13%	20%	35%	57%	91%	
Polycubes -----	58%	100%	100%	100%	100%	
Residues -----	89%	95%	95%	100%	100%	
3013 Packaging -----	48%	53%	64%	78%	94%	

\* The outer cans will be either re-canned or radiographed

# Major Accomplishments

## Nuclear Materials

- Received final Interim Storage Casks (ISCs) from the Fast Flux Test Facility (FFTF).
- Over 1700 items were stabilized and packaged in First Qtr FY04.
- Received final approval on Hanford meeting all Savannah River Site (SRS) Acceptance Criteria for 3013 containers.
- The first increment (10 percent) of the legacy Pu holdup was removed from gloveboxes in the "C" line and Plutonium Reclamation Facility (PRF).
- Began shipment of Pipe Overpack Containers containing legacy Plutonium (Pu) holdup material to the Central Waste Complex.



# Major Accomplishments (continued)

## Disposition PFP Facility

- The 232-Z Decommissioning Subproject is 25% complete. It should be noted that this includes FY03 activities which are primarily regulatory and safety documentation.
- The 232-Z EE/CA was released for a 45 day public comment period. Public comment period ends January 30.
- The final 241-Z Notice of Construction (NOC) was approved by the Washington State Department of Health. This NOC supports the tank D-5 pump replacement in addition to follow-on D&D activities.
- The FONSI for the PFP Deactivation Environmental Assessment was issued.
- The D&D Project has developed a sealout process for removal of glovebox process equipment that has significantly improved productivity and reduced employee exposure.



# Planned Activities

- **Complete Pu stabilization and packaging – transition to D&D activities and work teams.**
- **Review and approve the 232-Z building characterization Data Quality Objective (DQO) and Sampling Analysis Plan (SAP).**
- **Distribute documents for Public Comment:**
  - **End Point Criteria (EPC)**
  - **Closure Plans**
- **Finalize 241-Z Tank 361 Engineering Evaluation/Cost Analysis (EE/CA).**
- **Implement D&D Documented Safety Analysis (DSA).**

# Schedule / Cost Performance

## Fiscal Year to Date Status (\$000s)

<b>BASELINE PLAN</b>	<b>Budgeted Cost of Work Scheduled</b>	<b>Budgeted Cost of Work Performed</b>	<b>Actual Cost of Work Performed</b>	<b>Schedule Variance</b>	<b>\$</b>	<b>Schedule Variance %</b>	<b>Cost Variance \$</b>	<b>Cost Variance %</b>	<b>Budget At Completion</b>
<b>RL-11 PFP Closure Project*</b>	<b>\$33,578</b>	<b>\$33,051</b>	<b>\$26,435</b>	<b>(\$527)</b>		<b>-1.6%</b>	<b>\$ 6,616</b>	<b>20.0%</b>	<b>\$147,858</b>

*Status through December 2003 month end*

*\* Does not include Closure Services*

# **PHMC Schedule / Cost Performance**

## **Fiscal Year to Date Status**

### **Schedule Variance Analysis (-\$.5M):**

- **Significant negative schedule variance is being incurred due to delay in Pu de-inventory.**
- **The negative variance is off-set by the early completion of residues packaging in FY 2003, and stabilization progress ahead of schedule.**

### **Cost Variance Analysis (\$6.6M):**

- **Stabilization progress is ahead of schedule due primarily to FY04 work scope accelerated into FY03, with corresponding costs, while performance is claimed in FY04 (i.e., FY03 was a single budget year)...resulting in a positive cost variance.**
- **Partial performance on the staff ramp-up was claimed, since staff have been hired, with minimal costs to date.**

# Issues

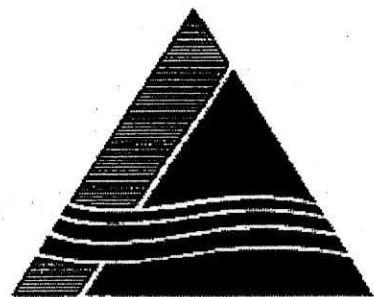
## ■ Regulatory Issue:

- None

## ■ Non-Regulatory Issues:

- Decision on Consolidation of Nuclear Material at SRS
- Availability of Safe and Secure Transports to SRS

# GROUNDWATER REMEDIATION PROJECT



*Tri-Party Agreement*

# GROUNDWATER REMEDIATION PROJECT

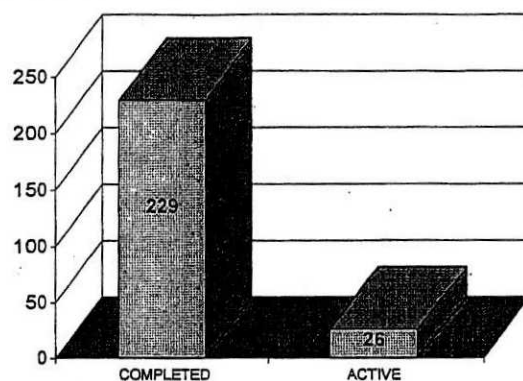
## GROUNDWATER REMEDIATION PROJECT FY 2004 TPA MILESTONE SUMMARY (Major & Interim Milestones)

Status as of: December 31, 2003

PBS	Milestone	Title	Compliance Date	Forecast/ Actual Date	Completed		Forecast		
					Ahead Schedule	On Schedule	Ahead Schedule	On Schedule	Behind Schedule
	M-024-00O	Complete required well installations in accordance with RCRA and CERCLA groundwater requirements. Install a minimum of 15 wells by 12/31/03.	12/31/03	12/31/03		X			
	M-020-00A	Submit Part B Permit Applications or Closure/Post Closure Plans for all RCRA TSD Units except 216-A-10, 216-A-36B, 216-A-37-1, 207-A South Retention Basin, 216-S-10 Pond, 216-S-10 Ditch, 241-CX-7-, 241-CX-71, and 241-CX-72.	2/28/04	2/28/04				X	
	M-015-41C	Submit 200-TW-1 & TW-2 OU FS and PP including Past Practice Waste Sites in 200-PW-5 Fission Product-Rich Process Waste Group	3/31/04	3/31/04				X	
	M-015-39B	Submit 200-CS-1 Chemical Sewer Group RI Report	5/31/04	5/31/04				X	
	M-013-00N	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan for the 200-UR-1 Unplanned Releases	6/30/04	6/30/04				X	
	M-015-43B	Submit 200-PW-2 OU RI Report including Past Practice Waste Sites in the 200-PW-4 General Process Waste Group	6/30/04	6/30/04				X	
	M-016-66	Initiate Intermediate Design and Authorization Safety Analysis for Remedial Actions (618-10/11)	9/30/04	9/30/04				X	

# GROUNDWATER REMEDIATION PROJECT

## Groundwater Remediation Project TPA Milestone Statistics (Major & Interim Milestones)



Major Milestone	Compliance Due Date	Total Active*	Milestone Number	Compliance Due Date	Milestone Description
<b>M-13-00</b> Submit Work Plans for RFI/CMS or RI/FS Studies	<b>12/31/2004</b> (M-13-000)	<b>2</b>	M-13-00N	06/30/04	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan For The 200-UR-1
			M-13-00O	12/31/04	Submit 1 200 NPL RI/FS (RFI/CMS) Work Plan For The 200-SW-1
<b>M-15-00</b> Site Investigations / Feasibility Studies	<b>12/31/2008</b> (M-15-00)	<b>12</b>	M-15-41C	03/31/04	Submit Draft 200-TW-1 OU & 200-TW-2 OU FS & Proposed Plan
			M-15-39B	05/31/04	Submit Draft A 200-CS-1 Chemical Sewer Group RI Report
			M-15-43B	06/30/04	Submit 200-PW-2 OU RI Report Including Past Practice Waste Sites
			M-15-40C	10/31/04	Submit Draft A 200-CW-5 Pond/Z Ditches Cooling Water Group FS
			M-15-46A	10/31/05	Submit 200 Area Chemical Laboratory Waste OUs RI Report
			M-15-39C	11/30/05	Submit Draft A 200-CS-1 Chemical Sewer Group FS and Proposed Plan
			M-15-43C	12/31/05	Submit 200-PW-2 OU FS and Proposed Plan/Permit Modification
			M-15-44A	12/31/05	Submit 200-MW-1 OU RI Report
			M-15-46B	09/30/06	Submit 200 Area Chemical Laboratory Waste OUs FS
			M-15-44B	12/31/06	Submit 200-MW-1 OU FS and Proposed Plan
			M-15-00C	12/31/08	Complete 200 Area Non-Tank Farm OU Pre-ROD Site Investigations
			M-15-00	12/31/08	Complete RI/FS (or RFI/CMS) Process for All Operable Units
<b>M-16-00</b> Remedial Design / Remedial Action	<b>9/30/2024</b> (M-16-00)	<b>3</b>	M-16-66	09/30/04	Initiate Intermediate Design & Authorization Safety Analysis
			M-16-67	03/31/07	Submit Design Report, Schedule, Work Plan for 618-10/11
			M-16-00	09/30/24	Complete Remedial Actions for All Non-Tank Farm Operable Units
<b>M-20-00</b> Submit Closure Plans for All RCRA TSD Units	<b>12/31/2008</b> (M-20-00) (Shared with FH)	<b>6</b>	M-20-00A	02/28/04	Submit Part B Permit Applications or Closure/Post Closure Plans
			M-20-39	11/30/05	Submit 216-S-10 Pond & Ditch Closure Plan to Ecology
			M-20-33	12/31/05	216-A-10/216-A-36B/216-A-37-1 Crib Closure/Post Closure Plans
			M-20-54	12/31/08	Submit 241-CX Tank System Closure/Postclosure Plan
			M-20-00B	12/31/08	Submit 216 & 241 Areas Closure/Post Closure Plans
			M-20-00	12/31/08	Submit Part B Permit Applications or Closure/RCRA TSD Units
<b>M-24-00</b> RCRA Groundwater Monitoring	<b>Annually</b>	<b>3</b>	M-24-00O(C)	12/31/03	Install RCRA Groundwater Wells at the Rate of up to 50 per Calendar Year
			M-24-00P	12/31/04	Install RCRA Groundwater Wells at the Rate of up to 50 per Calendar Year
			M-24-00Q	12/31/05	Install RCRA Groundwater Wells at the Rate of up to 50 per Calendar Year
			M-24-00R	12/31/06	Install RCRA Groundwater Wells at the Rate of up to 50 per Calendar Year
1 -- MILESTONE COMPLETED IN FY04 (C)					

**TOTAL ACTIVE MILESTONES**

**26**

\* Includes TPA changes requests approved thru December 1, 2003.



## ACCOMPLISHMENTS

### 200 Area Waste Site Remediation

The U Plant waste sites FFS and Proposed Plan were submitted to EPA Region 10 for review. Comments were received in December and are being addressed to support revision of the documents and the public review process.

The 200-PW-1, 200-PW-3, and 200-PW-6 Operable Unit (OU) Grouping field investigation is in progress. Drilling was initiated at 216-Z-9 although resources have been temporarily deferred to support completion of drilling at the BC Cribs and Trenches.

The draft Rev.0 Work Plan for 200-PW-1, 200-PW-3, and 200-PW-6 OU's (plutonium and organic-rich) was presented to RL and EPA. Comments have been verbally resolved and both agencies have agreed the document should be published as a Rev. 0 version. The document will be transmitted to EPA for regulatory review in accordance with the TPA. EPA stated that additional comments will be minimal, if any, and could be addressed through the approval letter.

Comments were received on the 200-CW-5, 200-CW-2, 200-CW-4, and 200-SC-1 Operable Units Remedial Investigation Report from the regulators in July and comment resolutions were finalized in December. The document is being finalized for transmittal to USDOE and the regulators.

Progress continues on development of the data quality objectives (DQO) to support completion of the 200 Area NPL site ecological risk assessment needs. A workshop was held on December 2, 2003 with Tri-Party participants and participants from the HNRTC and the HAB River & Plateau Committee to discuss draft Tri-Party responses to issues raised during the initial DQO scoping interviews.

A meeting was held on December 5, 2003 with Ecology to discuss their proposal to conduct collaborative negotiations on issues associated with the development of the 200-SW-1 and 200-SW-2 RI/FS Work Plan. RL agreed to participate in a series of collaborative issue resolution-type discussions beginning January 13, 2004. Issues must be resolved by April 2004 in order to keep the work plan development on schedule. This work plan is due December 31, 2004 under Tri-Party Agreement milestone M-013-000.

## Groundwater Remediation

The draft RI/FS work plan for the 200-UP-1 operable unit is being revised to address Washington Department of Ecology comments. The title of this report is *Remedial Investigation /Feasibility Study Work Plan for the 200-UP-1 Groundwater Operable Unit*, DOE-RL-92-76.

The draft *Remedial Investigation/Feasibility Study Work Plan for the 200-ZP-1 Groundwater Operable Unit*, DOE-RL-2003-55 is being reviewed by DOE/RL and EPA.

The three 100 Area pump-and-treat systems (100-KR-4, 100-NR-2 and 100-HR-3) and the 200-ZP-1 pump-and-treat system continued to operate above 90% availability throughout the first quarter. Installed replacement well for extraction wells 1 and 4 at 200-ZP-1.

The system tie-in is scheduled for second quarter. Installation of a third extraction well was completed for 200-UP-1. Due to technical problems with the Effluent Treatment Facility (ETF), the 200-UP-1 pump-and-treat system operated at just over 60% availability throughout the first quarter. The GPP is working with the ETF to develop a delivery schedule that will allow the 200-UP-1 system to pump an average 50 gallons per minute during CY 2004. The 50 gpm average is required by the interim action Record of Decision (ROD), but has not been met since the last 5 year ROD review.

Vapor extraction at Trench T-04 in the 218-W-4C Burial Ground was initiated on November 11, 2003.

As of December 11, 2003 twelve wells have been completed and accepted, drilling and completion of another nine wells is underway. Planning for the January drilling campaign has been initiated.

Fifty-seven wells were decommissioned by mid-October 2003. A second contract has been let to decommission unused piezometers and wells in the Central Plateau.

The DQO Process was initiated in October for the evaluation of impacts at 100 N to aquatic and riparian ecoreceptors. The contractors (Fluor Hanford and Bechtel) are coordinating their assessments. Draft test plans for laboratory studies supporting the 100-NR-2 strontium-90 treatment options (phytoremediation and apatite-sequestration) were prepared during the quarter and are being reviewed internally.

Remedial actions to address an additional area of chromium contaminated groundwater in the 100 D Area are being evaluated. A team of contractor personnel from FH, BHI, and PNNL was assembled to identify liquid drivers, sources, and groundwater remediation options. Ecology transmitted a letter to DOE requesting 3 actions: cut & cap water lines, extend the ISRM barrier, and complete source characterization.

## ISSUES

### U Plant Soil Waste Sites Issue Status

**Issue-** The characterization of pipelines and associated soil waste sites in the U Plant area supports the U Plant area closure, so the active part of the area closure is limited to the soil waste sites covered by the Feasibility Study and Proposed Plan already under regulatory review. The inactivity on the pipelines is due to two factors: the disagreement between Ecology and RL on the technical approach, and ongoing discussions between RL and ORP about their respective responsibility of scope. The technical disagreement is that USDOE is proposing to rely on the analogous sites approach for unplanned releases and pipelines. Ecology made prior comments that the analogous sites approach is not relevant for unplanned releases and pipelines. Ecology also proposes that for unplanned releases that are limited in areal extent, it should be cheaper to plan one mobilization and characterize using the observational approach during excavation/cleanup. USDOE proposes to use process knowledge for pipelines characterization; Ecology previously identified 4 specific alternatives (not including process knowledge) for pipelines characterization and remediation.

**Status-** ORP is working on characterization and remediation criteria for pipelines. They last provided status information to Ecology in August. The scope division between RL and ORP is the subject of ongoing discussions between the two organizations, and is also the focus of the IAMIT Central Plateau closure strategy working group.

### 200-PW-2 and 200-PW-4 Work Plan Approval

**Issue-** DOE and Ecology did not resolve one Ecology comment on the 200-PW-2 and 200-PW-4 Operable Units RI/FS Work Plan. Ecology agreed that DOE should proceed with field sampling prior

to approval of the work plan, because the unresolved comment placed the RI/FS schedule at risk. The Ecology comment was a request to sample one additional waste site. DOE disagreed with the technical basis. Continuing discussions have not resolved the disagreement and the work plan is still not approved.

**Status-** Ecology transmitted a revision to the work plan's sampling and analysis plan that identifies additional sampling requirements. RL will need to decide whether to accept the changes or formally dispute them.

At the November Unit Manager Meeting Ecology stated that the additional characterization data could be included in the Feasibility Study which follows the RI report so the associated FY04 and FY05 TPA milestones should not be negatively impacted.

### Draft B Revision of the 200-CW-1, 200-CW-3, and other 200 North Waste Sites Feasibility Study and Proposed Plan

**Issue-** EPA & Ecology transmitted a comment letter that identified a number of "global issues" but did not include detailed technical comments. DOE and the regulators have been working through the issues during a series of meetings.

**Status-** The remedial actions have been re-packaged as a result of the issues resolutions. RL expects to meet with EPA and Ecology in January 2004 to review changes and to discuss the technical issues and impacts associated with the re-packaged remedies as they will be proposed in the Draft B version of the FS and PP.

### 200-IS-1 and 200-ST-1 Work Plan Approval

**Issue-** Ecology has requested that the pits, lines, tanks, and boxes (200-IS-1) and septic tanks (200-ST-1) work plan be revised to include additional information on "likely response scenarios and potentially applicable technologies and operable units that may address site problems." This would require a revision to the Rev. 0 document.

**Status-** DOE is preparing a Revision 1 work plan. One unresolved issue is the interface between RL and ORP; the latter has programmatic responsibility for some waste sites included in these operable units that are not addressed by the work plan. ORP and the IAMIT Central Plateau work group are looking at the latter issue.

# Groundwater Protection Project

## TPA MILESTONE SUMMARY SCHEDULE

OPERABLE UNIT	Fiscal 2002				Fiscal 2003				Fiscal 2004				Fiscal 2005				Fiscal 2006				Fiscal 2007				Fiscal 2008				Fiscal 2009				Fiscal 2010				Fiscal 2011				Fiscal 2012				Fiscal 2013			
	BY QTR				BY QTR				BY QTR				BY QTR				BY QTR				BY QTR				BY QTR				BY QTR				BY QTR				BY QTR				BY QTR				BY QTR			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
<b>200 AREA REMEDIAL ACTION</b>	M-13-00L 12/26/01(A) Submit 3 200 NPL RIFS (RFVCMs) Work Plans				M-13-00M 12/26/02(A) Submit 1 200 NPL RIFS (RFVCMs) Work Plan for 200-IS-1 OU, Includes waste sites in 200-ST-1				M-13-00H Submit 1 200 NPL RIFS (RFVCMs) Work Plan for 200-UR-1 OU				M-13-06O Submit 1 200 NPL RIFS (RFVCMs) Work Plan for 200-SW-2 OU, Includes waste sites in 200-SW-1																																			
<b>200 AREA WORK PLANS</b>	M-13-21 12/26/01(A) Submit 1 200 NPL RIFS (RFVCMs) Work Plan for 200-IS-1 OU, Includes waste sites in 200-ST-1				M-13-21 12/26/02(A) Submit 1 200 NPL RIFS (RFVCMs) Work Plan for 200-IS-1 OU, Includes waste sites in 200-ST-1				M-13-21 12/26/03(A) Submit 1 200 NPL RIFS (RFVCMs) Work Plan for 200-IS-1 OU, Includes waste sites in 200-ST-1				M-13-21 12/26/04(A) Submit 1 200 NPL RIFS (RFVCMs) Work Plan for 200-IS-1 OU, Includes waste sites in 200-ST-1																																			
<b>200 AREA ASSESSMENTS</b>	M-15-30A 10/23/02(A) Submit 200-CW-1 FSPP/Proposed RCRA Permit Mod for Gable Mtn Pond/B Pond and Ditch Cooling Water Group				M-15-30B 10/23/03(A) Submit 200-CW-1 FSPP/Proposed RCRA Permit Mod for Gable Mtn Pond/B Pond and Ditch Cooling Water Group				M-15-40G Submit 200-CW-5 FSPP for U Pond/Z Ditches Cooling Water Group, Including Past Practice Waste Sites in 200-CW-2, 200-CW-4, & 200-SC-1				M-15-46A Submit 200 Area Chemical Lab Waste Ours RI Report				M-15-46B Submit 200 Area Chemical Lab Waste Ours FS																															
200-CW-1																																																
200-CW-5																																																
200-LW-1																																																
200-MW-1																																																
200-CS-1																																																
200-TW-1 / 200-TW-2																																																
200-PW-2																																																
200 AREA COMMON																																																
200 AREA CLOSURE PLANS																																																
200-CS-1																																																
200-PW-2																																																
200-IS-1																																																

Note 1 - "Ecology believes this is at risk"  
 Note 2 - "Ecology believes these are at risk due to unresolved comment on sampling plan"

M MAJOR MILESTONE I INTERIM MILESTONE T TARGET MILESTONE F FORECAST C COMPLETE U UNRECOVERABLE A AT RISK P PENDING CHANGE REQUEST RCRA PERMIT COMMITMENT

**Groundwater Protection Project**  
**TPA MILESTONES SUMMARY SCHEDULE**

[illegible]

**Land Disposal Restrictions Report  
(Tri-Party Agreement Milestone M-26-01)  
Quarterly Presentation  
January 27, 2004**



**M. S. Collins, RL Project Lead  
Eric Von Mason/Bob Wilson, Ecology Project Leads**



---

---

**Land Disposal Restrictions Report  
(Tri-Party Agreement Milestone M-26-01)  
January 27, 2004**

- Tri-Party Agreement requires that a Hanford Site Land Disposal Restrictions (LDR) Report be submitted annually
  - LDR Report is designated as a *primary* document in accordance with the Tri-Party Agreement
- The CY 2003 LDR Report (M-026-01N) will be submitted no later than April 30, 2004
  - Kick-off meeting was held December 11, 2003
  - Input due back January 23, 2004



---

---

**Land Disposal Restrictions Report  
(Tri-Party Agreement Milestone M-26-01)  
January 27, 2004**

- Program Manager Meetings (PMMs) continue to resolve outstanding actions outlined in the March 14, 2002, Resolution Agreement
  - Six of the seven actions are complete
  - One remains open (consolidation of requirements document)
- The PMMs are also used to address issues or concerns identified during the conduct of workscope or outyear activities
  - Open actions and/or remaining issues are statused during the PMMs



---

---

**Land Disposal Restrictions Report  
(Tri-Party Agreement Milestone M-26-01)  
January 27, 2004**

Actions Planned for Next Six Months

- Submit the CY 2003 LDR for regulator approval (April 30, 2004)
- Ecology approve CY 2003 LDR Report in accordance with Chapter 9.0 of the Tri-Party Agreement Action Plan, *Documentation and Records*
- Continue the monthly PMMs focusing on requirements consolidation and PMM commitments/actions

**Tritium Treatment Technology Evaluation**  
**Tri-Party Agreement Milestone M-26-07A**  
**January 27, 2004**

**Doug Hildebrand**  
**RL Central Plateau**

**Tritium Treatment Technology Evaluation**  
**(Tri-Party Agreement Milestone M-26-07A)**  
**January 27, 2004**

- Need identified to, on an annual basis, report and evaluate tritium treatment technology was incorporated into the Tri-Party Agreement in August 1994
  - Report will evaluate and status the development of tritium treatment technology and its application for cleanup and management of tritiated waste water (e.g., 242-A Evaporator process condensate liquid effluent) and tritium contaminated groundwater.
- Emerging tritium removal technologies were slow to mature, inadequacies identified during field demonstrations, and the lack of a commercial demand for development of tritium technologies required a change in the frequency for submitting the Report to biennially in 1996 and then to every five-years in 2003
  - The change in reporting frequency coincides with the EPA/CERCLA five-year groundwater record of decision (ROD) review
- RL will submit a letter report to EPA/Ecology for the intervening years of the report
- Report will be submitted on schedule (March 31, 2004)



# Tri-Party Agreement M-91 Milestone Series Quarterly Presentation

G. L. Sinton  
U.S. Department of Energy,  
Richland Operations Office

January 27, 2004

## Tri-Party Agreement M-91 Milestone Series Quarterly Presentation

### Significant Accomplishments of Last Three Months:

- Submitted M-91-03 PMP on time (12/31/03)
- Started public comment period on M-91 settlement TPA change package
- Initiated retrieval in 218-W-4C (10/17/03)
- Initiated trench sampling in accordance with approved SAP (10/15/03)
- Started Vapor Extraction in T-4 (11/11/03)
- Started retrieval in T-4 (1/12/04)
- Ahead of schedule on mixed waste treatment  
(643 m<sup>3</sup> of M-91-42 waste treated in 1<sup>st</sup> quarter FY04)

M-91 Status Summary 1/22/04

Milestone	Due Date(s)	Status Summary	Comments
<b>General Comments</b>			<p>1) In this current table "On-Schedule" means it is anticipated the proposed settlement change request milestone will be met. At present the baseline is being revised to realign the scope/schedule to match the settlement change request. RL expects a contract period BCR and a revised life cycle baseline from FH on March 1, 2004 that will better define the detail of the schedule to meet the proposed settlement milestones.</p> <p>2) M-91 requirements are extensive and continue well out into the future. This status table will generally only cover items due within about the next four years. A separate "Outyear table" identifies the other M-91 milestones</p>
<b>M-91-03:</b> Submit TRUM/MLLW PMP	12/31/03, 3/31/09, 3/31/13	On Schedule	<ul style="list-style-type: none"> <li>• PMP submitted to Ecology for review on time (12/31/03).</li> <li>• On-going coordination with Ecology: Additional information to be provided to Ecology during 45 day review period.</li> <li>• Ecology may extend comment period</li> <li>• Thermal treatment plan to be worked out</li> </ul>
<b>M-91-05-T01:</b> Complete RH and or large TRUM retrieval Engineering Study/FDC	12/31/07	On Schedule (planning)	
<b>M-91-12:</b> CH-MLLW Thermal Treatment (600 m <sup>3</sup> cumulative)	12/31/05	Treatment capacity it not currently available to meet this milestone	<ul style="list-style-type: none"> <li>• Plan for meeting thermal treatment needs is incorporated into the M-91-03 PMP. Ecology has requested more information</li> <li>• Plan to use existing limited capacity in near term while seeking more capacity</li> <li>• Increased rates in out years (assumes capacity obtained)</li> <li>• Issue RFP for additional capacity Spring 2004</li> </ul> <p>45 m<sup>3</sup> of CH-MLLW have been thermally treated as of 1/22/04 that will count toward this milestone</p>

<b>M-91-12A:</b> CH-MLLW Thermal Treatment (240 m <sup>3</sup> )	12/31/04	Treatment capacity it not currently available to meet this milestone	<ul style="list-style-type: none"> <li>• Plan for meeting thermal treatment needs is incorporated into the M-91-03 PMP. Ecology has requested more information</li> <li>• Plan to use existing limited capacity in near term while seeking more capacity</li> <li>• Increased rates in out years (assumes capacity obtained)</li> <li>• Issue RFP for additional capacity Spring 2004</li> <li>• 45 m<sup>3</sup> of CH-MLLW have been thermally treated as of 1/22/04 that will count toward this milestone.</li> </ul>
<b>M-91-40:</b> Retrieval and designation of CH-RSW (regardless of size)	1200 m <sup>3</sup> retrieved by 12/31/04 and annual retrieval volumes through 2010 plus various other requirements	Behind Schedule (but expected to recover)	<ul style="list-style-type: none"> <li>• Plan to add extra shift to recover schedule</li> <li>• Initiated retrieval in 218-4C 10/17/03 (required by 11/15/03)</li> <li>• Initiated trench sampling in accordance with approved SAP 10/15/03.</li> <li>• Started vapor extraction in T-4 11/11/03 (required by 11/15/03): Carbon Tetrachloride level declining toward 10ppm level</li> <li>• 28 m<sup>3</sup> (137 drums) of RSW retrieved as of 1/23/04 (1200 cubic meters required by 12/31/04)</li> <li>• 1st quarterly SAP report planned for submittal in February</li> <li>• Retrieval started in trench 4 1/12/04 (due 1/15/04).</li> </ul>
<b>M-91-42:</b> Treatment of non-large size CH-MLLW	Annual treatment requirements through 12/31/09	On Schedule (or ahead of schedule)	<ul style="list-style-type: none"> <li>• 1658 m<sup>3</sup> of the 5066 m<sup>3</sup> of backlog CH-MLLW in storage subject to this milestone have been dispositioned (treated and/or disposed) as of 1/1/04.</li> <li>• 25 m<sup>3</sup> of newly generated CH-MLLW subject to this milestone have been treated as of 1/1/04.</li> <li>• The total volume of MLLW dispositioned that counts toward M-91-42 is 1683m<sup>3</sup> as of 1/1/04. (1630 m<sup>3</sup> required by 12/31/04).</li> <li>• Note: The M-91-42 progress quantities indicated above currently only include waste dispositioned by FH. The</li> </ul>

			<p>actual progress numbers may be slightly higher due to waste subject to the milestone treated by other contractors.</p> <ul style="list-style-type: none"> <li>• Ahead of schedule due to successful 183-H project.</li> <li>• The quantities in this milestone are based on the 2002 LDR report. Therefore, the cumulative volumes toward meeting this milestone are based on a start date of 12/31/02 (LDR report inventory date).</li> </ul>
<b>M-91-45:</b> RH and or Large Size Waste Annual Progress Report	9/30/04 and annually thereafter	On Schedule	<ul style="list-style-type: none"> <li>• First report was submitted 9/30/03 (was an Administrative Order requirement)</li> </ul>

Fn: M-91 PMM Status table

M-91 Out-year Milestone Status Summary 1/22/04

Milestone	Due Date(s)	Status Summary	Comments
<b>General Comments</b>			1) This table is intended to identify the M-91 milestones that are not covered in the more detailed near term M-91 Status Summary Table. These milestones are generally those with due dates four or more years in the future.
<b>M-91-00:</b> Major Milestone for acquisition of needed facilities/capabilities for mixed and suspect MLLW, and TRUM and suspect TRUM.	TBD	On Schedule (planning)	
<b>M-91-01:</b> Facility/Capability Interim Milestone (RH and/or large container TRUM)	6/30/12	On Schedule (planning)	
<b>M-91-15:</b> RH MLLW and/or Large Size MLLW Treatment	6/30/08	On Schedule (Planning)	"COMPLETE ACQUISITION OF FACILITIES AND/OR CAPABILITIES AND INITIATE TREATMENT OF RH-MLLW AND CH MLLW IN BOXES AND LARGE CONTAINERS"
<b>M-91-41:</b> Retrieval and Designation of RH RSW (regardless of size)	See Comment column	On Schedule (Planning)	<ul style="list-style-type: none"> <li>1/1/11: Initiate retrieval of RH RSW</li> <li>12/31/14: Complete non-caisson RH RSW retrieval</li> <li>12/31/18: Complete 4B RH RSW retrieval</li> </ul>
<b>M-91-43:</b> Designation and treatment of RH and or Large Size MLLW	See Comment Column	On Schedule (Planning)	<ul style="list-style-type: none"> <li>12/31/08: Complete designation of RH MLLW and or Large Size MLLW in storage.</li> <li>6/30/08: Begin RH and or large size MLLW treatment at rate of 300 cubic meters per year</li> </ul>

<b>M-91-44:</b> Designation of Newly Generated and Stored RH and or Large Size Transuranic Waste	See Comment Column	On Schedule (Planning)	<ul style="list-style-type: none"> <li>Designate all RH and or large size transuranic waste in storage by 12/31/12</li> </ul>
--	-----------------------	---------------------------	---

Fn: M-91 PMM Status Table Outyears



# Tri-Party Agreement M-91 Milestone Series Quarterly Presentation

## Actions Planned for Next Six Months

- Complete TPA change request public comment process
- Process final TPA change request
- Process baseline change request to realign baseline with revised agreement
- Finalize M-91-03 PMP submitted 12/31/03
- Issue thermal treatment RFP
- Continue with MLLW treatment, RSW retrieval, and waste processing
- Submit first quarterly burial ground vent/substrate sampling report to Ecology (February)

# Tri-Party Agreement M-91 Milestone Series Quarterly Presentation

## Issues

- Resolution of thermal treatment plan in PMP and milestones 12/12A

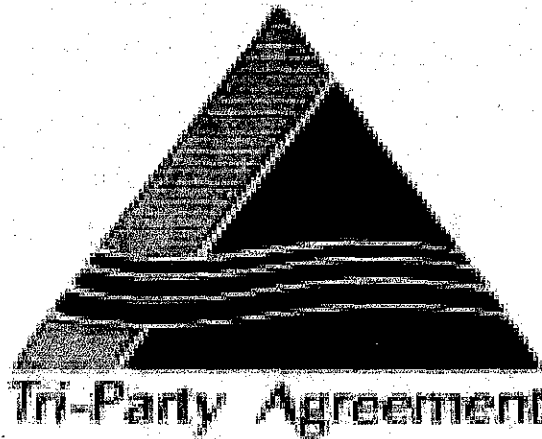
# Tri-Party Agreement M-91 Milestone Series

## Quarterly Presentation

### Budget/Cost Status

- RL expects a contract period BCR and a revised life-cycle baseline from FH in March, 2004 that will better define the detail of the cost and schedule to meet the proposed change request milestones
- Budget and cost performance information will be added to future presentations once the baseline is established

# Cesium/Strontium Capsule Dry Storage Project TPA Quarterly Review



U.S. Department of Energy

U.S. Environmental Protection Agency

Washington State Department of Ecology

01/27/04

# Cesium/Strontium Capsule Dry Storage Project

## Milestone Summary

- **TPA Milestone M-92-00**

Complete acquisition of new facilities, modification of existing facilities necessary for the storage, treatment/ processing and disposal of Hanford site cesium and strontium capsules, bulk sodium and 300 area special case waste.

- **TPA Milestone M-92-01 – 12/31/2009**

Complete commercial disposition and/or acquisition of new facilities, modification of existing facilities and/or modification of planned facilities necessary for site wide consolidation, storage prior to commercial use, or treatment and/or repackaging by DOE TWRS (ORP).

- **TPA Milestone M-92-05 – 6/30/2007**

DOE will assess the viability of directly disposing of Hanford Cs/Sr capsules at the National High-Level Waste Repository.

# Cs/Sr Capsule Dry Storage Project

## M-92-01 Accomplishments

- Developed project requirements through issuance of the Project Management Plan, Performance Specification, and Functions and Requirements documents.
- Established process technical basis by issuing Capsule Advisory Panel reports.
- Completed scoping of the safety analysis
- Initiated NEPA analysis and defined RCRA Part B permitting path.

# Cesium/Strontium Capsule Dry Storage Project

## M-92-01 Accomplishments

- Procurement actions to acquire design/fabrication contractor:
  - Request for proposal issued 5/20/03
  - Bids from 5 vendors received 7/7/03
  - Consent Package submitted to DOE 8/12/03
  - Extended the proposal validity date to 11/7/03
  - Awarded contract in December 12, 2003  
(Transnuclear)



# Cesium/Strontium Capsule Dry Storage Project

## M-92-05 Status

- M-92-05

Continuing efforts to assess viability for direct disposal at the high-level waste repository

## Cesium/Strontium Capsule Dry Storage Project 6-Month Look Ahead

- DOE currently evaluating the priority of this on the path forward for the project.
  - Most likely option is to defer the Cs/ Sr Project and allocate the associated funding to higher priority work scope, such as the acceleration of suspect TRU retrieval and mixed low level treatment mandated by the proposed M-91 Change Package.

# Cesiums/Strontium Capsule Dry Storage Project FY-04 Performance Summary

## Cost and Schedule Variance Summary:

- No cost or schedule variance has been calculated due to the late authorization of the project.

# Special Case Waste 340 Building

- Completed the 340 complex portion of Tri Party Agreement Milestone M-92-16 (Complete removal and transfer and initiate storage of Phase III 300 Area Special Case Waste).
  - The tanks have been emptied to minimum heel similar as was done in B Plant and PUREX and subsequent evaporation has lowered the levels further to significantly below minimum heel levels. Ecology was given a tour and presentation showing how difficult it will be to remove these heels along with the unnecessary exposure there would be to the worker. DOE has agreed that the intent of this portion of the milestone has been met and has directed FH not so perform additional work. These tanks and heels will be dispositioned under M-94-01.
- Activities described in PMP HNF-5068, Revision 1A are deferred to the River Corridor Contractor as managed/directed under Tri Party Agreement Milestone M-94-04.
  - The PMP deliverables are the milestones M-92-14, -15, and -16. The intent of deferring to M-94-04 is to disposition the minimum heels in the vault tanks as part to the D&D program.
- Report of Closure submitted to WDOH for Permitted 340-A Building Tank solids removal activities pursuant to Washington Administrative Code 246-247-080(6).
  - The Report of Closure is required by WDOH to allow classifying the stack as a minor stack for emissions. This Report of Closure states that operations have permanently ceased in these tanks. EPA has agreed that current emissions warrant the minor stack classification. If direction is given in the future to remove the heels, the stack will be redesignated as a major stack. It is expected that the tanks with heels will be removed intact to be dispositioned in T-Plant during the D&D process.

## M-20 Milestone Status Permits and Closure Plans

Presented by:

**Tony McKarns**  
U.S. Department of Energy

January 27, 2004

### Closure Plan Milestone Status

**M-20-33**

**12/31/2005**

Submit 216-A-10 Crib, 216-A-36B Crib, 216-A-37-1 Crib, and 207-A South Retention Basin Closure/Postclosure Plans to Ecology in coordination with the Feasibility Study for the 200-PW-2 Uranium-Rich Process Waste Group Operable Unit (coordinate under M-15-43C)

**M-20-39**

**11/30/2005**

Submit 216-S-10 Pond and Ditch Closure/Postclosure Plans to Ecology in coordination with the Feasibility Study for the 200-CS-1 Chemical Sewer Group Operable Unit (coordinate under M-15-39C)

**M-20-54**

**12/31/2008**

Submit 241-CX-70 Storage Tank, 241-CX-71 Neutralization Tank, 241-CX-72 Storage Tank, 241-CX Storage Tank Closure/Postclosure Plan to Ecology in coordination with the 200-IS-1 Tanks/Lines/Pits/ Boxes Operable Unit Work Plan Feasibility Study scheduled under M-13-00M.

**Current Milestone Status:**

Program planning.

### Hanford Facility RCRA Permit Status

- The Hanford Facility RCRA Permit expires on 9/27/04. The Permittees are preparing to reapply for the Permit and are discussing content and format issues with Ecology. The reapplication is due to Ecology 3/31/04.
- Issuance of Modification E (Central Waste Complex and Waste Receiving and Processing Facility) is waiting a decision on offsite shipments.
- Ecology proposed Modification F to the Hanford Facility RCRA Permit, which incorporates the 222-S Laboratory Complex. The Permittees provided comments to Ecology on Modification F. Ecology is reviewing agreements reached under Modification E in the context of permitting under Modification F.

3

### Accomplishments – last 3 months

- DOE submitted Class 1 modifications to Ecology for quarter ending 12/31/03.
- DOE submitted the Closure/Postclosure Cost Estimate Report to Ecology on 10/31/03.
- DOE and CH2M Hill certified and submitted Revision 1 of the SST System Closure Plan

4

### Planned Actions – next 6 months

- DOE and Ecology close major milestone M-20-00A, due date 2/28/04. DOE and Ecology schedule discussion to review TSD unit status.
- DOE submit Annual Noncompliance Report to Ecology by 3/1/04.
- DOE submit documentation for Permit reapplication by 3/31/04.
- DOE and Ecology continue NOD workshops for the LLBG. Ecology extended the NOD workshops to resolve issues for an additional 180 days.
- DOE and CH2M Hill will certify and submit Revision 2 of the SST System Closure Plan

### Planned Actions – next 6 months (cont.)

- Ecology respond to Class 1 modifications submitted for quarter ending 9/30/03 and 12/31/03.
- Ecology issue procedural closure decision for Radioactive Liquid Waste Tank in 325 Hazardous Waste Treatment Units following public comment.
- Ecology and DOE resolve comments on the closure plan for the 216-B-3 TSD unit, in conjunction with the CERCLA feasibility study for the 200-CW-1 and 200-CW-3 operable units.
- Ecology approve closure of the 1324-N surface impoundment and 1324-NA percolation pond.
- Ecology provide NODs on the Double-Shell Tank System (DST) Part B Application.
- Ecology provide NODs for the Immobilized High-Level Waste Storage Unit (IHLW) Part B permit application.
- Ecology provide NODs for the Integrated Disposal Facility (IDF) Part B permit application.
- Ecology transmit to DOE draft permit for T Plant Complex.